

K082142

510(k) Summary
Prepared October 27, 2008

Sponsor: Siemens Medical Solutions, Inc.,
Ultrasound Division
1230 Shorebird Way
Mountain View, California 94043

NOV 13 2008

Contact Person: Shelly Pearce
Telephone: (650) 694-5988
Fax: (650) 694-5580

Submission Date: October 13, 2008

Device Name: Acuson S2000™ Ultrasound System

Common Name: Diagnostic Ultrasound System

Classification:

Regulatory Class: II
Review Category: Tier II
Classification Panel: Radiology

Ultrasonic Pulsed Doppler Imaging System	FR # 892.1550	Product Code 90-IYN
Ultrasonic Pulsed Echo Imaging System	FR # 892.1560	Product Code 90-IYO
Diagnostic Ultrasound Transducer	FR # 892.1570	Product Code 90-ITX

A. Legally Marketed Predicate Devices

The Acuson S2000™ Ultrasound System is substantially equivalent to the Acuson Antares Ultrasound System.

B. Device Description:

The Acuson S2000™ has been designed to meet the following product safety standards:

- UL 60601-1, Safety Requirements for Medical Equipment
- IEC 60601-2-37 Diagnostic Ultrasound Safety Standards
- CSA C22.2 No. 601-1, Safety Requirements for Medical Equipment
- AIUM/NEMA UD-3, Standard for Real Time Display of Thermal and Mechanical Acoustic Output Indices on Diagnostic Ultrasound Equipment
- AIUM/NEMA UD-2, Acoustic Output Measurement Standard for Diagnostic Ultrasound
- 93/42/EEC Medical Devices Directive
- Safety and EMC Requirements for Medical Equipment
 - EN/IEC 60601-1
 - EN/IEC 60601-1-1
 - EN/IEC 60601-1-2
- IEC 1157 Declaration of Acoustic Power
- ISO 10993-1 Biocompatibility

C. Intended Use

The S2000™ ultrasound imaging systems are intended for the following applications: Fetal, Abdominal, Intraoperative, Pediatric, Small Parts, Transcranial, OB/GYN, Cardiac, Pelvic, Neonatal/Adult Cephalic, Vascular, Musculoskeletal, Superficial Musculoskeletal, and Peripheral Vascular applications.

The system also provides the ability to measure anatomical structures {fetal, abdominal, intraoperative, intraoperative neurological, pediatric, small organ, neonatal cephalic, adult cephalic, cardiac, trans-esophageal, transrectal, transvaginal, peripheral vessel, musculo-skeletal (conventional), musculo-skeletal (superficial) and neonatal cardiac} and calculation packages that provide information that provide information to the clinician that may be used adjunctively with other medical data obtained by a physician for clinical diagnosis purposes.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

NOV 13 2008

Ms. Shelly Pearce
Regulatory Affairs
Siemens Medical Solutions USA, Inc.
P.O. Box 7393, 1230 Shorebird Way
MOUNTAIN VIEW CA 94039

Re: K082142

Trade/Device Name: Acuson S2000™ Diagnostic Ultrasound System
Regulation Number: 21 CFR 892.1550
Regulation Name: Ultrasonic pulsed doppler imaging system
Regulatory Class: II
Product Code: IYN, IYO, and ITX
Dated: September 17, 2008
Received: September 22, 2008

Dear Ms. Pearce:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

This determination of substantial equivalence applies to the following transducers intended for use with the Acuson S2000™ Diagnostic Ultrasound System, as described in your premarket notification:

Transducer Model Number

CW2 Probe
CW5 Probe
EC9-4 Curved Array
9L4 Linear Array
14L5 Multi-D Array
4P1 Phased Array
6C2 Curved Array
4C1 Curved Array
4V1 Phased Array

10V4 Phased Array
14L5 SP Linear Array
7CF2 Curved Array
9EVF4 Curved Array
V5Ms Multiplane TEE
17L5HDS Linear Array
18L6 HD Linear Array
8V3 Phased Array

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

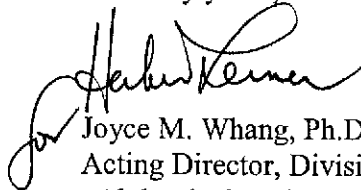
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus permits your device to proceed to market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>

If you have any questions regarding the content of this letter, please contact Lauren Hefner at (240) 276-3666.

Sincerely yours,



Joyce M. Whang, Ph.D.
Acting Director, Division of Reproductive,
Abdominal, and Radiological Devices
Office of Device Evaluation
Center for Devices and Radiological Health

Enclosure(s)

1.3 Indications for Use

510(k) Number (if known): K082142

Device Name: S2000™ Diagnostic Ultrasound System

Indications for Use:

The S2000™ ultrasound imaging systems are intended for the following applications: Fetal, Abdominal, Intraoperative, Pediatric, Small Parts, Transcranial, OB/GYN, Cardiac, Pelvic, Neonatal/Adult Cephalic, Vascular, Musculoskeletal, Superficial Musculoskeletal, and Peripheral Vascular applications.

The system also provides the ability to measure anatomical structures {fetal, abdominal, intraoperative, intraoperative neurological, pediatric, small organ, neonatal cephalic, adult cephalic, cardiac, trans-esophageal, transrectal, transvaginal, peripheral vessel, musculo-skeletal (conventional), musculo-skeletal (superficial) and neonatal cardiac} and calculation packages that provide information that provide information to the clinician that may be used adjunctively with other medical data obtained by a physician for clinical diagnosis purposes.

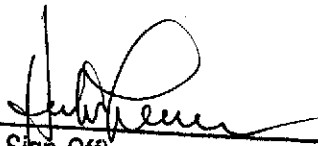
Prescription Use X
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)



(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K082142

1.3 Indications for Use Forms

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name:

ACUSON S2000 Ultrasound System

Intended Use:

Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10, 11, 13
Abdominal		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10, 11, 13
Intraoperative (Note 9)		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10, 11, 14
Intraoperative Neurological		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11, 14
Pediatric		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Small Organ (Note 1)		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10, 11, 14
Neonatal Cephalic		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Adult Cephalic		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Cardiac		P	P	P	P	P	P		BMDC	Note 2,3,4,5,6,7,8,10
Trans-esophageal		P	P	P	P	P	P		BMDC	
Transrectal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11, 14
Transvaginal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Transurethral										
Intravascular										
Peripheral vessel		P	P	P	P	P	P		BMDC	Note 2,3,4,5,6,7,8,10, 11, 14
Laparoscopic										
Musculo-skeletal Conventional		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10, 11, 14
Musculo-skeletal Superficial		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10, 11, 14
Other (specify)		P	P	P	P	P	P		BMDC	Note 3,4,6
Neonatal Cardiac										

N = new indication; P = previously cleared by FDA, K072786; E = added under Appendix E

Note 1 For example: breast, testes, thyroid, penis, prostate, etc.

Note 2 Ensemble tissue harmonic imaging

Note 3 SieClear multi-view spatial compounding

Note 4 Tissue Equalization Technology

Note 5 3-Scape real-time 3D imaging

Note 6 Cadence contrast agent imaging

Note 7 B&W SieScape panoramic imaging

Note 8 Power SieScape panoramic imaging

Note 9 For example: vascular, abdominal

Note 10 Clarify VE vascular enhancement technology

Note 11 Advanced Sieclear multi-view spatial compounding

Note 13 STIC

Note 14 eSie™ Touch elasticity imaging

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.10)

(Division Sign-Off)

Division of Reproductive, Abdominal and
Radiological Devices

510(k) Number

K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name:

CW2 Probe for use with ACUSON S2000

Intended Use:

Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal					P					
Abdominal					P					
Intraoperative (Note 9)					P					
Intraoperative Neurological										
Pediatric					P					
Small Organ (Note 1)					P					
Neonatal Cephalic					P					
Adult Cephalic					P					
Cardiac					P					
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel					P					
Laparoscopic										
Musculo-skeletal Conventional					P					
Musculo-skeletal Superficial					P					
Other (specify)										

N = new indication; P = previously cleared by FDA K# 063803, K072786; E = added under Appendix E

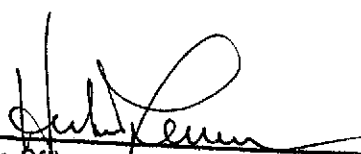
Additional Comments:

Note 1 For example: breast, testes, thyroid, penis, prostate, etc.

Note 9 For example: vascular, abdominal

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: CW5 Probe for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal					P					
Abdominal					P					
Intraoperative (Note 9)					P					
Intraoperative Neurological										
Pediatric					P					
Small Organ (Note 1)					P					
Neonatal Cephalic					P					
Adult Cephalic					P					
Cardiac					P					
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel					P					
Laparoscopic										
Musculo-skeletal Conventional					P					
Musculo-skeletal Superficial					P					
Other (specify)										

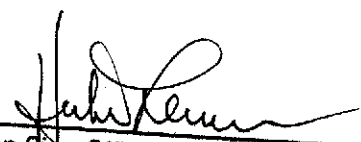
N = new Indication; P = previously cleared by FDA K# 063803, K072786; E = added under Appendix E

Additional Comments:

Note 1 For example: breast, testes, thyroid, penis, prostate, etc.
Note 9 For example: vascular, abdominal

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number 15082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: EC9-4 Curved Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Abdominal		P	P	P		P	P		BMDC	Note 2,3,4,5,6,7,8,10, 11,
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric										
Small Organ (Note 1)		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11,14
Neonatal Cephalic		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10
Adult Cephalic										
Cardiac										
Trans-esophageal										
Transrectal		P	P	P		P	P		BMDC	Note 2,3,4,5, 6, 7,8,10, 11,14
Transvaginal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Transurethral										
Intravascular										
Peripheral vessel										
Laparoscopic										
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other (specify)										


N = new indication; P = previously cleared by FDA K# 063803, K072786; E = added under Appendix E

Additional Comments:

- Note 1 For example: breast, testes, thyroid, penis, prostate, etc.
- Note 2 Ensemble tissue harmonic imaging
- Note 3 SieClear multi-view spatial compounding
- Note 4 Tissue Equalization Technology
- Note 5 3-Scape real-time 3D imaging
- Note 6 Cadence contrast agent imaging
- Note 7 B&W SieScape panoramic imaging
- Note 8 Power SieScape panoramic imaging
- Note 10 Clarify VE vascular enhancement technology
- Note 11 Advanced Sieclear multi-view spatial compounding
- Note 12
- Note 14 eSie™ Touch elasticity imaging

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 9L4 Linear Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Abdominal										
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Small Organ (Note 1)		P	P	P		P	P		BMDC	Note 2,3,4,5,6,7,8,10, 11,14
Neonatal Cephalic		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Adult Cephalic										
Cardiac										
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel		P	P	P		P	P		BMDC	Note 2,3,4,5,6, 7,8,10, 11, 14
Laparoscopic										
Musculo-skeletal Conventional		P	P	P		P	P		BMDC	Note 2,3,4,5,6,7,8,10, 11, 14
Musculo-skeletal Superficial		P	P	P		P	P		BMDC	Note 2,3,4,5,6,7,8,10, 11, 14
Other (specify)										

N = new indication; P = previously cleared by FDA K# 063085, K072786; E = added under Appendix E

Additional Comments:

- Note 1 For example: breast, testes, thyroid, penis, prostate, etc.
 Note 2 Ensemble tissue harmonic imaging
 Note 3 SieClear multi-view spatial compounding
 Note 4 Tissue Equalization Technology
 Note 5 3-Scape real-time 3D imaging
 Note 6 Cadence contrast agent imaging
 Note 7 B&W SieScape panoramic imaging
 Note 8 Power SieScape panoramic imaging
 Note 10 Clarify VE vascular enhancement technology
 Note 11 Advanced Sieclear multi-view spatial compounding
 Note 12
 Note 14 eSie™ Touch elasticity imaging

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal and
Radiological Devices

510(k) Number

K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 4P1 Phased Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Abdominal		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric										
Small Organ										
Neonatal Cephalic										
Adult Cephalic		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Cardiac		P	P	P	P	P	P		BMDC	Note 2,3,4,5,6,7,8,10
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel										
Laparoscopic										
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other (specify)										

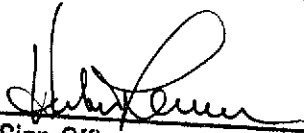
N = new indication; P = previously cleared by FDA K# 063803, K072786; E = added under Appendix E

Additional Comments:

- Note 2 Ensemble tissue harmonic imaging
- Note 3 SieClear multi-view spatial compounding
- Note 4 Tissue Equalization Technology
- Note 5 3-Scape real-time 3D imaging
- Note 6 Cadence contrast agent imaging
- Note 7 B&W SieScape panoramic imaging
- Note 8 Power SieScape panoramic imaging
- Note 10 Clarify VE vascular enhancement technology

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 6C2 Curved Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Abdominal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11, 14
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Small Organ										
Neonatal Cephalic										
Adult Cephalic										
Cardiac										
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Laparoscopic										
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other (specify)										

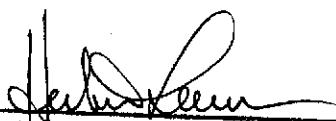
N = new indication; P = previously cleared by FDA K# 063085, K072786; E = added under Appendix E

Additional Comments:

- Note 2 Ensemble tissue harmonic imaging
- Note 3 SieClear multi-view spatial compounding
- Note 4 Tissue Equalization Technology
- Note 5 3-Scape real-time 3D imaging
- Note 7 B&W SieScape panoramic imaging
- Note 8 Power SieScape panoramic imaging
- Note 10 Clarify VE vascular enhancement technology
- Note 11 Advanced Sieclear multi-view spatial compounding
- Note 14 eSie™ Touch elasticity imaging

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 4C1 Curved Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Abdominal		P	P	P	P	P	P		BMDC	Note 2,3,4,5,6,7,8, 10, 11, 14
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric										
Small Organ		P	P	P	P	P	P		BMDC	
Neonatal Cephalic										
Adult Cephalic										
Cardiac		P	P	P	P	P	P		BMDC	
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel		P	P	P	P	P	P		BMDC	
Laparoscopic										
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other (specify)										

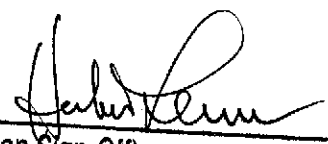
N = new indication; P = previously cleared by FDA K# 063085, K072786, K032114; E = added under Appendix E

Additional Comments:

- Note 2 Ensemble tissue harmonic imaging
- Note 3 SieClear multi-view spatial compounding
- Note 4 Tissue Equalization Technology
- Note 5 3-Scape real-time 3D imaging
- Note 6 Cadence contrast agent imaging
- Note 7 B&W SieScape panoramic imaging
- Note 8 Power SieScape panoramic imaging
- Note 10 Clarity VE vascular enhancement technology
- Note 11 Advanced Sieclear multi-view spatial compounding
- Note 12
- Note 14 eSie™ Touch elasticity imaging

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 4V1 Phased Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10
Abdominal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10,14
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric										
Small Organ										
Neonatal Cephalic										
Adult Cephalic										
Cardiac										
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel										
Laparoscopic										
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other (specify)										

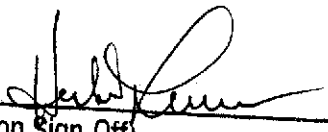
N = new indication; P = previously cleared by FDA K# 063085, K072786; E = added under Appendix E

Additional Comments:

- Note 2 Ensemble tissue harmonic imaging
- Note 3 SieClear multi view spatial compounding
- Note 4 Tissue Equalization Technology
- Note 5 3-Scape real-time 3D imaging
- Note 7 B&W SieScape panoramic imaging
- Note 8 Power SieScape panoramic imaging
- Note 10 Clarify VE vascular enhancement technology
- Note 11 Advanced Sieclear multi-view spatial compounding
- Note 14 eSie™ Touch elasticity imaging

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 10V4 Phased Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Abdominal		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Small Organ										
Neonatal Cephalic		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Adult Cephalic										
Cardiac		P	P	P	P	P	P		BMDC	Note 3,4
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Laparoscopic										
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other (specify)										

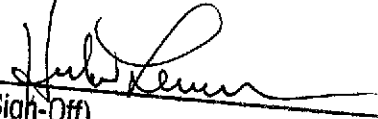
N = new indication; P = previously cleared by FDA K# 063085, K072786; E = added under Appendix E

Additional Comments:

- Note 2 Ensemble tissue harmonic imaging
Note 3 SieClear multi view spatial compounding
Note 4 Tissue Equalization Technology
Note 5 3-Scape real-time 3D imaging
Note 7 B&W SieScape panoramic imaging
Note 8 Power SieScape panoramic imaging
Note 10 Clarify VE vascular enhancement technology

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 14L5 SP Linear Array Transducer for use with ACUSON S2000
Indications For Use: Diagnostic imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal										
Abdominal										
Intraoperative (Note 9)		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10
Intraoperative Neurological		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11
Pediatric										
Small Organ (Note 1)		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11,14
Neonatal Cephalic										
Adult Cephalic										
Cardiac										
Transesophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel		P	P	P		P	P		BMDC	Note 2,3,4,5,6, 7,8,10, 11,14
Laparoscopic										
Musculo-skeletal Conventional		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11,14
Musculo-skeletal Superficial										
Other (specify)										


N = new indication; P = previously cleared by FDA K# 063085, K072786; E = added under Appendix E

Additional Comments:

- Note 1 For example: breast, testes, thyroid, penis, prostate, etc.
 Note 2 Ensemble tissue harmonic imaging
 Note 3 SieClear multi-view spatial compounding
 Note 4 Tissue Equalization Technology
 Note 5 3-Scape real-time 3D imaging
 Note 6 Cadence contrast agent imaging
 Note 7 B&W SieScape panoramic imaging
 Note 8 Power SieScape panoramic imaging
 Note 9 For example: vascular, abdominal
 Note 10 Clarify VE vascular enhancement technology
 Note 11 Advanced SieClear multi-view spatial compounding
 Note 14 eSie™ Touch elasticity imaging

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


 (Division Sign-Off)
 Division of Reproductive, Abdominal and
 Radiological Devices
 510(k) Number K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 7CF2 Curved array mechanical 3D transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11,13
Abdominal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11, 13
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric										
Small Organ										
Neonatal Cephalic										
Adult Cephalic										
Cardiac										
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel										
Laparoscopic										
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other (specify)										


N = new indication; P = previously cleared by FDA K# 063803, K072786; E = added under Appendix E

Additional Comments:

- Note 2 Ensemble tissue harmonic imaging
- Note 3 SieClear multi-view spatial compounding
- Note 4 Tissue Equalization Technology
- Note 5 3-Scape real-time 3D imaging
- Note 7 B&W SieScape panoramic imaging
- Note 8 Power SieScape panoramic imaging
- Note 10 Clarity VE vascular enhancement technology
- Note 11 Advanced Sieclear multi-view spatial compounding
- Note 13 STIC

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 9EVF4 Curved Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8, 10,11
Abdominal										
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric										
Small Organ										
Neonatal Cephalic		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8, 10,11
Adult Cephalic										
Cardiac										
Trans-esophageal										
Transrectal										
Transvaginal		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8, 10,11
Transurethral										
Intravascular										
Peripheral vessel										
Laparoscopic										
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other (specify)										

N = new indication; P = previously cleared by FDA K# 063803, K072786; E = added under Appendix E

Additional Comments:

- Note 2 Ensemble tissue harmonic imaging
- Note 3 SieClear multi-view spatial compounding
- Note 4 Tissue Equalization Technology
- Note 5 3-Scape real-time 3D imaging
- Note 7 B&W SieScape panoramic imaging
- Note 8 Power SieScape panoramic imaging
- Note 10 Clarify VE vascular enhancement technology
- Note 11 Advanced Sieclear multi-view spatial compounding

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal and
Radiological Devices

510(k) Number

K082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: V5Ms Multiplane TEE Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

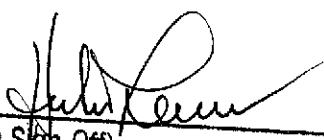
Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal										
Abdominal										
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric										
Small Organ										
Neonatal Cephalic										
Adult Cephalic										
Cardiac										
Trans-esophageal		P	P	P	P	P	P		BMDC	
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel										
Laparoscopic										
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other (specify)										

N = new indication; P = previously cleared by FDA K# 063803, K072786; E = added under Appendix E

Additional Comments: n/a

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K08240

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 17L5HDS Linear Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal										
Abdominal										
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric										
Small Organ (Note 1)		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11,14
Neonatal Cephalic										
Adult Cephalic										
Cardiac										
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11,14
Laparoscopic										
Musculo-skeletal Conventional		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11,14
Musculo-skeletal Superficial		P	P	P		P	P		BMDC	Note 2,3,4,5,7,8,10, 11,14
Other (specify)										

N = new indication; P = previously cleared by FDA K# 063085, K072786; E = added under Appendix E

Additional Comments:

- Note 1 For example: breast, testes, thyroid, penis, prostate, etc.
 Note 2 Ensemble tissue harmonic imaging
 Note 3 SieClear multi-view spatial compounding
 Note 4 Tissue Equalization Technology
 Note 5 3-Scape real-time 3D imaging
 Note 7 B&W SieScape panoramic imaging
 Note 8 Power SieScape panoramic imaging
 Note 10 Clarity VE vascular enhancement technology
 Note 11 Advanced Sieclear multi-view spatial compounding
 Note 14 eSie™ Touch elasticity imaging

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number 5082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 18L6 HD Linear Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal										
Abdominal										
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric										
Small Organ (Note 1)		N	N	N		N	N		BMDC	Note 2,3,4,5,7,8,10,11,14
Neonatal Cephalic										
Adult Cephalic										
Cardiac										
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel		N	N	N		N	N		BMDC	Note 2,3,4,5,7,8,10,11,14
Laparoscopic										
Musculo-skeletal Conventional		N	N	N		N	N		BMDC	Note 2,3,4,5,7,8,10,11,14
Musculo-skeletal Superficial		N	N	N		N	N		BMDC	Note 2,3,4,5,7,8,10,11,14
Other (specify)										


N = new indication; P = previously cleared by FDA; E = added under Appendix E

Additional Comments:

- Note 1 For example: breast, testes, thyroid, penis, prostate, etc.
 Note 2 Ensemble tissue harmonic imaging
 Note 3 SieClear multi-view spatial compounding
 Note 4 Tissue Equalization Technology
 Note 5 3-Scape real-time 3D imaging
 Note 7 B&W SieScape panoramic imaging
 Note 8 Power SieScape panoramic imaging
 Note 10 Clarify VE vascular enhancement technology
 Note 11 Advanced Sieclear multi-view spatial compounding
 Note 14 eSie™ Touch elasticity imaging

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


 (Division Sign-Off)
 Division of Reproductive, Abdominal and
 Radiological Devices
 510(k) Number 2082142

Diagnostic Ultrasound Indications for Use Form

510 (k) Number (if known):

Device Name: 8V3 Phased Array Transducer for use with ACUSON S2000
Intended Use: Ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application	Mode of Operation									
	A	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (Specify)	Other (Specify)
Ophthalmic										
Fetal		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Abdominal										
Intraoperative Abdominal										
Intraoperative Neurological										
Pediatric		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Small Organ										
Neonatal Cephalic		P	P	P	P	P	P		BMDC	Note 2,3,4,5,7,8,10
Adult Cephalic										
Cardiac		P	P	P	P	P	P		BMDC	Note 3,4,6
Trans-esophageal										
Transrectal										
Transvaginal										
Transurethral										
Intravascular										
Peripheral vessel										
Laparoscopic										
Musculo-skeletal Conventional										
Musculo-skeletal Superficial										
Other (specify)										
Neonatal Cardiac		P	P	P	P	P	P		BMDC	Note 3,4,6


N = new indication; P = previously cleared by FDA K# 063085, K072786; E = added under Appendix E

Additional Comments:

- Note 2 Ensemble tissue harmonic imaging
- Note 3 SieClear multi-view spatial compounding
- Note 4 Tissue Equalization Technology
- Note 5 3-Scape real-time 3D imaging
- Note 6 Cadence contrast agent imaging
- Note 7 B&W SieScape panoramic imaging
- Note 8 Power SieScape panoramic imaging
- Note 10 Clarity VE vascular enhancement technology

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use (Per 21 CFR 801.109)


(Division Sign-Off)
Division of Reproductive, Abdominal and
Radiological Devices
510(k) Number K082142